



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D2244-116
Job Sheet 177259



508118

Part No: D2244-116

Job Qty: 86 ea

Part Name: Step Extrusion



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 5/9/18

Job Tracking No:

Due Date: 6/7/18

Created By: Chantal Lavoie

Type: Stock

Description:

Note: DWG REV D1

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	86 pcs		6/7/18	0.00	0.00	Purchasing		JUN 14 2018
110	Packaging	86 pcs		6/7/18	0.00	0.00	Packaging2		JUN 14 2018
120	QC	86 pcs		6/7/18	0.00	0.00	QC6		JUN 14 2018
130	Packaging	86 pcs		6/7/18	0.00	0.00	Packaging3		DAS
140	QC21-SA	86 Ea		6/7/18	0.00	0.00	QC21		21 18-06-18

Part Op 100 - Issue P/O: 39843 a) Extrude as per Dwg D2244 b) Material: 6061-T6 (QQ-A-200/8) c) Minimum yield
Descriptions: tensile strength = 35 ksi d) Minimum ultimate tensile strength = 38 ksi e) Minimum elongation = 8% f) Order at 116" long
g) Caradon Indalex Tool # MH-18865 h) Material cert's is required ***EXTREME CARE MUST BE TAKEN TO PROTECT
THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE
DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.*** MUST BE WELL PACKAGE, IF NOT IT WILL BE
REFUSE***

110 - Ensure certification are attached

120 - Check Pull test per Dwg D2244 for compliance page attached. Check hardness with Webster tester

130 - LOCATION : WA003

DAS
13
9-89

MAY 09 2018

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D2244-116P	Step Extrusion	86 pcs (1 ea)	100-Purchasing	

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	D2244-116P	86	0	0

Part Specifications

not be found.

Plex 5/9/18 8:56 AM dart.lavoie.chantal



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S081118



Part: D2244-116

Job No: 177259

Serial No/Batch: S081118

Revision:

Inspector:

Exp Date:

Instructions:

Date: 06/14/18

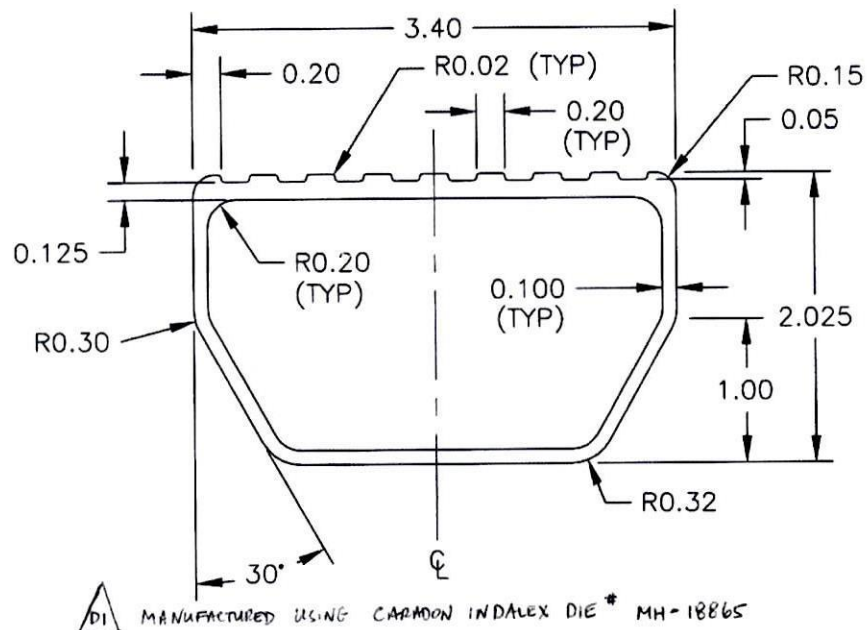
ntrol/Report_Viewer_2.asp?URL=../Part/Job_Sheet.asp&Report=True&Job_Key



DESIGN BW		DRAWN BY <i>[Signature]</i>		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>KE</i>		APPROVED <i>[Signature]</i>		DRAWING NO. D2244	
DATE 98.11.18		TITLE STEP EXTRUSION		REV. D SHEET 1 OF 1 SCALE 1:1	
A	94.07.05	NEW ISSUE			
B	94.07.11	REDESIGNED			
C	94.08.08	REDESIGNED			
D	98.11.18	REMOVED 6005A MATERIAL INCORPORATED DEO 9081			
DI	01.04.17	ADDED DIE # <i>40</i>			

RELEASED
1981.25 KE

need wto



PART NUMBER D2244-XX.X
XX.X IS CUT LENGTH IN INCHES

MATERIAL: ~~6061-T6~~ (QQ-A-200/8)

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE MINIMUM MECHANICAL PROPERTIES STATED BELOW:

MINIMUM TENSILE YIELD STRENGTH = 35 ksi
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi
MINIMUM ELONGATION = 8%

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

Rapport des propriétés mécaniques Certified Test Report

Client / Customer: **DART AEROSPACE LTD**
Adresse / Address: **270 ABERDEEN STREET
HAWKESBURY ONT,
K6A 1K7**

commande Hydro / Hydro order #: **8050635**

bon de commande / Purchase order #: **39843**

de matrice / Die #: **MH 18865**

Alliage & trempage / Alloy & temper: **6061 T6**

Contrôle / Control #: **13310-1**

Coulée / Cast #: **72376**

Description: **Step Extrusion**

Customer Part #: **DS2244-116P**

Conductivité / Conductivity: **N / A**

ASTM B221-14

Propriétés mécaniques Mechanical Properties	Min.requis Min.required	Résultat actuel Actual results
Tension ultime Ultimate stress (ksi)	38.0	42.7
Contrainte élastique Yield stress (ksi)	35.0	36.7
% élongation dans 2" % elongation in 2"	8	9.5
Dureté Rockwell E (hre) Rockwell E Hardness (hre)	88 @ 100	89

Composition chimique Réelle / Real chemical composition :

Alliage	Cast no	Cu	Mg	Si	Fe	Mn	Ti	Zn	Cr
N / A									

Certificat

Hydro Extrusion Canada, Inc. certifie par la présente que le métal expédié sous ce rapport a été testé conformément à la norme ASTM identifié et / ou spécifications ASME et les résultats de l'analyse chimique et les propriétés mécaniques des tests sont dans les plages d'acceptabilité des spécifications. La garantie du produit est régie par Extrusion Amérique du Nord. Les conditions standard des ventes sont affichées sur la page web : www.hydroextrusions.com/termsconditions.

Certification

Hydro Extrusion Canada, Inc. hereby certifies that the metal shipped under this report has been tested in accordance with the identified ASTM and/or ASME specifications and the results of the chemical analysis and mechanical properties tests are within the acceptable ranges of these specifications. Any product warranty is governed by the Extrusion North America Standard Terms and Conditions of Sale posted at www.hydroextrusions.com/termsconditions.

Sincèrement vôtre,
Yours truly,

Date : **2018-05-30**

Daniel Alfredo Pelletier
Directeur Qualité
Quality Manager

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D2244-116
 DATE: JUN 14 2018

PO / BATCH NO.: 03984.3/5081109

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 68 PCS
 QUANTITY INSPECTED: 68 PCS
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.100
 THICKNESS RECEIVED: 0.100
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y ☒ N ☐	
CORRECT FINISH	☒ Y ☐ N	
CORROSION	Y ☒ N ☐	
CORRECT GRAIN DIRECTION	☒ Y ☐ N	
CORRECT MATERIAL PER M-DRAWING	☒ Y ☐ N	<u>Aston B221</u>
CORRECT THICKNESS	☒ Y ☐ N	
PHOTO REQUIRED	Y ☒ N ☐	
CORRECT REF # TO LINK CERT	☒ Y ☐ N	<u>Heat # 72376 PO # 039843</u>
CORRECT MATERIAL IDENTIFICATION	☒ Y ☐ N	
CORRECT M# ON THE MATERIAL	☒ Y ☐ N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y ☒ N ☐	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y ☒ N ☐	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u> DATE: <u>9-89</u> <u>JUN 14 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



Hydro Extrusion Canada, Inc

325, rue Avro

Pointe-Claire Québec H9R 5W3

Téléphone: (514) 697-5120

Télécopieur: (514) 694-8310

Packing Slip / Détail de Livraison

Packing Slip No /
Bon de Livraison

130052

Order no/
Commande

8050635 1

Ship to/Expédiée à DART AEROSPACE LTD 1270 ABERDEEN STREET HAWKESBURY, ONT K6A1K7		Sold to/Vendu à DART AEROSPACE LTD 1270 ABERDEEN STREET HAWKESBURY, ONT K6A1K7		Special Instr / Instr. Spéciales
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Cust No/No du Client 201355	Cust No/No PD du Client 39843	PPD/PAYÉ X	Ord Dte/Dte Comm 18/05/10	Our Ord Dte/ Notre Dte la Comm 18/05/10	Hydro H.S.T #: R857314058
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PST/TPV * 6122-5207	Terms/Cond	Date Required/ Date Requite	Shipped/ Expedi 18/06/08	Shipped Via/ Expédiée Par OTTAWA 11 JUIN
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Item No	Ordered Weight Pcs/ Commande Poids Pcs	Hydro Die no/ Matrice d'Sapa	Customer Description/ Description de Client	Alloy & Temper/ Alliage et Trempage	Length Longueur	Backorder Wgt Pcs Arrière Poids Pcs	This Shipment Bdls Pcs Wght Com Expédiée Ballots Pcs Poids
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1	500 86		DUE=2018/06/08 JN08 STEP EXTRUSION MH 18865 DS2244-116P 6061 T6 2946MM BUNDLE= 1356004 1356005 We hereby certify that the material supplied meets the chemical properties as published by the Aluminum Association, and requirements of our Quality procedures				2 68 397 KGS
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Aluminum Extrusions - Anodizing - Fabrication - Painting
Profils D'Aluminum - Anodisation - Fabrication - Peinture

The above items were received in good order.
Les articles ci-dessus ont été reçu en bon ordre.

By/Par.....